

ECOLOGY AND EVOLUTION OF INFECTIOUS DISEASE – PI MEETING
March 16-17, Athens, GA
PROGRAM

SATURDAY, MARCH 16

8:30	John Gittleman	U Georgia	Welcome
8:35	James Porter	U Georgia	Opening remarks
8:40	Sam Scheiner	NSF	Opening remarks
8:45	Susan VandeWoude Kevin Crooks	Colorado State U	The effects of urban fragmentation and landscape connectivity on disease prevalence and transmission in North American felids
9:15	Meredith Wright	J. Craig Venter Inst	Comparative genome analysis reveals extensive microdiversity among strains of <i>Acinetobacter baumannii</i> from a single US hospital
9:30	Dorte Dopfer	U Wisconsin Madison	Causal Network Analysis to trace the propagation of pathogenic <i>E. coli</i> through small-scale populations of cattle
9:45	Bethany Krebs	U Illinois Urbana-Champaign	Social behavior and vector-borne disease infection in the American Robin

10:00 BREAK

10:30	Brett Froelich	U North Carolina Chapel Hill	The importance of long term cross-disciplinary study of pathogen dynamics in relation to extreme climatic events in complex estuarine systems: an examination across scales
11:00	Meghan Mason	U Minnesota	Transmission of <i>Leptospira</i> at the household level: the role of rodents, environmental water, and human behaviors
11:15	Sergey Berg	U Minnesota	Small-scale spatial analysis of factors associated with <i>Leptospira</i> contamination of surface water in slum communities from southern Chile
11:30	Jeremie Brusini	U California Santa Cruz	Differential coevolutionary dynamics for <i>E. coli</i> and the phage lambda in two resource environments
11:45	Albert Ko	Yale U	Ecoepidemiology of leptospirosis in the urban slums of Brazil

12:00 LUNCH

1:30	James Porter	U Georgia	Blurring the line between human and environmental health: Coral Disease in the Florida Keys
2:00	Karen Shapiro	U California Davis	Kelp beds as sinks for zoonotic pathogens
2:15	Gael Kurath	USGS	Drivers of ecology and evolution of a fish rhabdovirus in Pacific Salmon

2:30 POSTER SESSION

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8:30	Eric Harvill	Pennsylvania State U	Respiratory pathogens and host microbiota
9:00	Laura Estep	Oregon State U	Colonization site tenacity as a key determinant of focus influence during epidemic expansion of pathogens characterized by fat-tailed dispersal: Simulation and field experiments with stripe rust <i>Puccinia striiformis</i>
9:15	Laura Pomeroy	Ohio State U	Transmission and immune dynamics of endemic foot-and-mouth disease by serotype
9:30	Wayne Getz	U California Berkeley	Anthrax in Etosha, Namibia, and lessons for anthrax worldwide

10:00 BREAK

10:15	Graham Hickling	U Tennessee	The eco-epidemiology of low Lyme disease risk in the southeastern U.S.
10:45	Marilyn O'Hara Ruiz	U Illinois Urbana-Champaign	West Nile virus in suburban Chicago, Illinois: our emerging view of infection dynamics of hosts, vectors and viruses
11:00	Arietta Fleming-Davies	U Chicago	Mechanisms that maintain the diversity of an insect viral pathogen
11:15	Alfred Roca	U Illinois Urbana-Champaign	One hundred twenty years of Koala Retrovirus and host evolution
11:30	Darin Carroll	CDC	Monkeypox ecology in DRC: Past, present and future

12:00 LUNCH

1:15	Charles King	Case Western Reserve U	The problem of polyparasitism in coastal Kenya
1:45	Elizabeth Falendysz	USGS	Evaluation of the Gambian pouched rat as a potential Monkeypox reservoir using bioluminescent imaging
2:00	Maria Diuk-Wasser	Yale U	Emergence of human babesiosis in northeastern United States
2:15	Matthew Barber	U Utah	Evolutionary arms races in the battle for iron
2:30	Vanessa Ezenwa	U Georgia	Microparasite-macroparasite interactions: Worms and germs in African buffalo

3:00 BREAK

3:30	Holly Biggs	Duke U	Progress with research on the impact and social ecology of bacterial zoonoses in northern Tanzania
4:00	Glenn Lahodny Jr.	Texas A&M U	Probability of an outbreak for stochastic epidemic models with environmental transmission
4:15	Marta Wayne	U Florida	Experimental evolution of sigma virus in <i>Drosophila</i>
4:30	Matthew Thomas	Pennsylvania State U	The influence of environmental temperature on transmission of vector-borne diseases

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Ankomah, P.	Emory U	Antibiotic Treatment of Bacterial Infections: Pharmacodynamics meets Population Dynamics meets Immunology
Ascunce, M.	U Florida	Host-pathogens-endosymbiont interactions: How do virus-endosymbiont interactions affect host life history traits?
Beechler, B.	Oregon State U	Disease invasion and multi-parasite interactions: Rift Valley fever and bovine tuberculosis in African Buffalo in Kruger National Park, South Africa
Belle, J.	Emory U	Using spatial networks inferred from pair-wise cost-distance distributions to understand the spatial spread of pathogens across complex landscapes: an application to human schistosomes
Benavides, J.	Montana State U	Interspecies transmission and within-host dynamics of brucellosis in elk and bison
Bloomfield, L.	Stanford U	Multiplex Social Relations and Retroviral Transmission Risk in Rural Western Uganda
Breyta, R.	U Washington	Differential Susceptibility in Host Populations Within the Landscape Ecology of a Fish Rhabdovirus
Brito, I.	U Michigan	Modeling the spread of IHN Virus in salmonids throughout the Northwestern United States
Bruns, E.	U Virginia	Disease impact on population dynamics: a demographic approach
Budischak, S.	U Georgia	Interactive effects of protein nutrition and parasite co-infection
Bushman, M.	Emory U	Within-host competition of drug-sensitive and drug-resistant malaria parasites
Call, D.	Washington State U	Ecological and socio-economic factors impacting maintenance and dissemination of antibiotic resistance in the Greater Serengeti Ecosystem
Campbell, L.	U Kansas	Monkeypox niche models: Spatial data processing and analysis
Conrad, P.	U California Davis	Roles of a marine host cycle and particle aggregation in transmission of zoonotic pathogens in coastal ecosystems
Culbreth, E.	U Florida	Sigma virus and male reproductive success, or, who's your daddy
Dobbs, F.	Old Dominion U	Microscopic islands--Aquatic pathogens colonizing marine aggregates
Dunn, J.	RMIT U	M150775 Babesiosis Emergence in the United States
Friberg, C.	Copenhagen U	The effect of low concentrations of antibiotics on <i>S. aureus</i>
Frydenborg, B.	U Georgia	The influence of temperature on bacteriophage of <i>Serratia marcescens</i>
Fuller, J.	U Michigan	The role of shared sanitation and housing density on the spread of pathogens within a rural community

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Fuqua, C.	Indiana U Bloomington	Costs, Benefits and Population Dynamics of a Cooperative Virulence Plasmid
Goldberg, T.	U Wisconsin Madison	Co-infection of Wild African Primates with Simian Immunodeficiency Viruses and Simian Hemorrhagic Fever Viruses
Goodman, K.	U Georgia	Virulence genes and pathogenicity islands in Vibrio isolates cultured from diseased elkhorn coral
Gross, K.	North Carolina State U	The community ecology of co-infection: Identifying determinants of pathogen diversity
Guinn-Durbak, L.	Ohio State U	Evaluating covariates of waterborne disease spread: cholera in Nigeria as a case study
Haas, S.	U North Carolina Charlotte	Empirical space-time modeling of emerging forest disease in a heterogeneous landscape of environmental change
Hamer, G.	Texas A&M U	Patterns of haemosporidia and West Nile virus association in free-ranging avian hosts
Hawley, D.	Virginia Tech U	Evolution of Increased Virulence in a Recently Emerged Wildlife Pathogen: Parallel Patterns and Potential Mechanisms
Hersh, M.	Eastern Michigan U	The community ecology of a troublesome tickborne triad: Co-circulation of Anaplasma phagocytophilum, Babesia microti, and Borrelia burgdoferi in blacklegged ticks and wildlife hosts
Hobbs, T.	Colorado State U	Bayesian hierarchical modeling of disease dynamics: A case example using chronic wasting disease
Hofmann, E.	Old Dominion U	Development of a Theoretical Basis for Modeling Disease Processes in Marine Invertebrate
Hosseini, P.	EcoHealth Alliance	Comparative Spillover Dynamics of Avian Influenza in Endemic Countries
Ivanek, R.	Texas A&M U	What have we learned about the role of intermittent shedding and environmental persistence in transmission of infectious diseases?
Kemp, D.	U Georgia	Spatial homogeneity of microbial communities associated with the surface mucus layer of the reef building coral Acropora palmata
Kramer, A.	U Georgia	Understanding the contribution of marine aggregate-associated bacteria to pathogen load in oysters using an agent-based model
Krusor, C.	U California Davis	Potential role for marine snails in the transmission of Toxoplasma gondii to Southern sea otters
Lane, K.	U Georgia	Testing for signatures of disease-induced selection in a wild population
Lester, J.	U Cambridge	Disease, Networks and the Kibale National Park
Levy, K.	U Michigan	Social and environmental contexts modify the effect of extreme rainfall on diarrhea incidence in Northern Coastal Ecuador
Lopera, J.	U Wisconsin Madison	The utility of in vivo imaging in investigations of emerging zoonoses

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Manore, C.	U Georgia	The role of African buffalo in interepidemic persistence of Rift Valley fever in Kruger National Park, South Africa
Mazzillo, F.	U California Santa Cruz	Adherence of <i>Toxoplasma gondii</i> via exopolymer substances to <i>Macrocystis pyrifera</i> : A proposed mechanism for sea otter exposure to terrestrial pathogens
Mendiola, L.	EcoHealth Alliance	EcoHealthNet: Providing Practical, Interdisciplinary, and Mentored Training Opportunities for EcoHealth Scientists
Moller-Jacobs, L.	Pennsylvania State U	The influence of juvenile nutritional quantity on aspects of vector competence of the malaria vector mosquito <i>Anopheles stephensi</i>
Monaghan, A.	Nat Center Atmospheric Res	Climate change and the vector mosquito <i>Aedes aegypti</i> at the high altitude margins in Mexico: Observational and modeling results
Moody, T.	U Tennessee	<i>Plestiodon</i> spp. skinks contribute to the low risk of Lyme disease in the southeastern U.S.
Nakazawa, Y.	CDC	The impact of paleo climates and glaciation on monkeypox distributions
Newman, C.	U Wisconsin Madison	Ecology of <i>Culex flavivirus</i> during West Nile virus epidemic and inter-epidemic years in suburban Chicago
Nys, E.	Rollins College	The use of the sea anemone <i>Aiptasia pallida</i> as a model organism for studying white pox coral disease
Olival, K.	EcoHealth Alliance	The Ecology, Emergence and Pandemic Potential of Nipah virus in Bangladesh
Paige, S.	U Wisconsin Madison	Animal contact, injury, and zoonotic disease risk in western Uganda
Pang, G.	Michigan State U	Blacklegged Tick Development and Survivorship in the Eastern United States
Pierce, M.	U Connecticut	Functional and species diversity of the gut and pallial fluid microbiomes of the eastern oyster, <i>Crassostrea virginica</i>
Rogers, K.	U Utah	Adaptive Evolution of Vaccinia Virus Despite a Low Mutation Rate
Ruiz-Lopez, M.	U Oregon	Use of RNA-seq and nextRAD for the development of a red colobus monkey population genomic resource
Shapiro, K.	U California Davis	Association of <i>Toxoplasma gondii</i> oocysts with fresh, estuarine, and marine macroaggregates
Spicknal, I.	U Michigan	The role of <i>E. coli</i> HGT on the population spread of antibiotic resistance: interaction between pathogens, commensals, and transients
Tien, J.	Ohio State U	Disease invasion of networks of communities
Zhang, L.	U Michigan	The relationship between the virulence of <i>Escherichia coli</i> and antibiotic resistance: A study in rural Ecuador communities
Zhang, X-h.	Texas A&M U	Modeling the Effect of Vaccination on the Transmission Dynamics of <i>Escherichia coli</i> O157:H7 in Cattle and Goat Herds